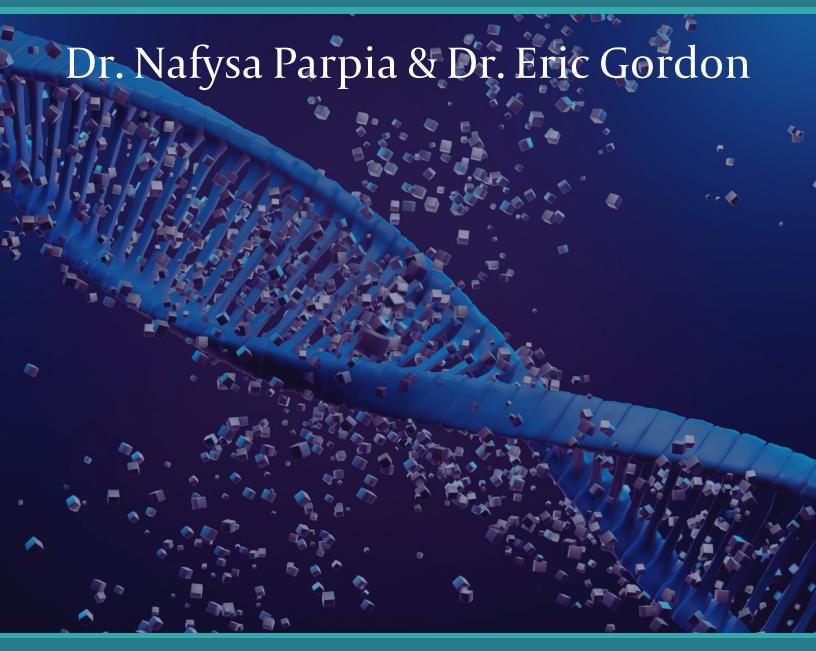
What Your Doctor Might Be Missing

In The New Health Landscape







DR. NAFYSA PARPIA

Dr. Nafysa Parpia is a board-certified naturopathic doctor and the Director of Naturopathic Medicine at Gordon Medical.

Throughout her career in holistic medicine, she has focused on treating patients with complex chronic illnesses. She specializes in tickborne illness/Lyme disease, environmentally acquired illness, mold/mycotoxin illness, autoimmunity, fibromyalgia, Long COVID, ME/CFS (chronic fatigue syndrome) and MCAS (mast cell activation syndrome).

Dr. Parpia's extensive knowledge has helped people worldwide overcome difficult-to-treat medical conditions. She uses cutting-edge laboratory tests and deep intuition applied to the full range of scientific data to create comprehensive treatment plans that are highly personalized.

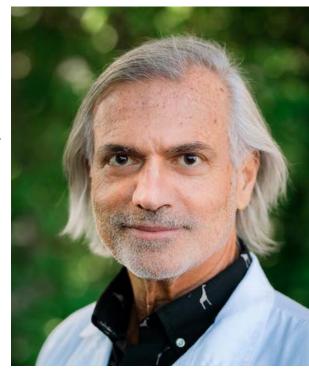
Her targeted system of care includes a synergistic blend of allopathic and functional medicine diagnoses paired with treatment that includes regenerative medicine, micronutrient therapies, peptide therapies, bioidentical hormone therapy, botanical medicine, pharmaceuticals and psychoemotional support.

DR. ERIC GORDON

Eric Gordon, MD, is the Clinical Director of Gordon Medical Associates, specializing in complex chronic illness. In addition to clinical practice (40+ years), Dr. Gordon is engaged in clinical research and is the President of Gordon Medical Research Center.

Dr. Gordon has focused on bringing together leading international medical researchers and cutting-edge clinicians focusing on ME/CFS, Lyme disease, and autoimmune diseases. In addition, he combined forces with Dr. Robert Naviaux and his research into metabolomics, mitochondrial function, and chronic inflammatory disease.

Gordon Medical Associates is also a collection site for the Lyme Disease Biobank, providing patient samples to researchers worldwide.



INTRODUCTION

Welcome to this comprehensive guide on navigating the complexities of chronic illness and what your doctor might be missing. While many health practitioners are undoubtedly well-versed in addressing acute conditions, this session is designed to shed light on the unique considerations essential for managing the chronic health issues so prevalent in the U.S. and beyond.

Rates of chronic illness are rising at alarming rates and are estimated to increase by 99.5% in populations 50 and above over the next 20 years. Chronic conditions are taking an "immense and increasing toll on lives," according to the World Health Organization, and the CDC says that "more than 40% of school-aged children and adolescents have at least one chronic illness." 3

Unlike acute illnesses, which often stem from a single cause, chronic conditions involve the intricate interplay between your body and a multitude of factors in your internal and external environment. Join us as we explore the nuances of treating chronic illness, offering valuable insights for you and your healthcare team to get to the root of your condition and begin the healing process.

In This Session We'll Address

- The complexities of chronic illness
- > What to do when your labs come back "normal"
- What your doctor needs to know, including chronic underlying infections, tick-borne illness, environmental toxins, and more
- > How the vagus nerve and central nervous system impact chronic illness
- > Putting the pieces together, including diagnostics, immune regulation, specific testing recommendations, and more
- An intro to peptides, Long-COVID treatment options, and what your options are moving forward



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What's Next?

About Gordon Medical Associates

If you're reading this, you likely have some experience with chronic illness.

Maybe it's you, or perhaps it's a loved one, but you're familiar with the complexities of it – and how difficult it can be to heal. That's because many people experience myriad different, seemingly unrelated symptoms – largely unexplainable by your doctor.

For the most part, this isn't the doctor's fault but the result of a medical system that explains all illnesses via a single cause or event instead of a systemic response to multiple events over time. Chronic illness is rarely due to one thing, but many layers of issues, which we will discuss today.

Most chronic patients have multiple symptoms simultaneously. You might have chronic fatigue, brain fog, or neurological symptoms that neurologists can't seem to explain.

Most tests come back normal, but you've got numbness or tingling in your extremities, you're dizzy, you have headaches, or maybe confusion and brain fog. But, again, there's no explanation for any of it.

Maybe you've been to a gastroenterologist, and they say you have irritable bowel syndrome because you've got a combination of diarrhea, constipation, and anxiety. But they can't help much and certainly don't explore what might lie underneath. You've just got IBS, right?

Or maybe you have an increased heart rate or POTS, but you pass all the cardiologist exams, and they say there's nothing wrong with you – you're probably just anxious.

"Wastebasket" Diagnoses

Along the way, many of you have accumulated multiple diagnoses, from chronic fatigue to fibromyalgia to autoimmune diseases. Still, many of these labels have no specific treatment other than symptom suppression and symptom management.

These are often last-resort diagnoses; in the past, doctors referred to them as "wastebasket diagnoses." This means there's no true understanding of the pathophysiology or what is causing the problem. **Generally, there are no good treatment options, and patients are resigned to many years of pharmaceutical-based symptom management as they continue to deteriorate.**

When it comes to chronic illness, many of these diagnoses were first developed as a way to organize patients' complaints, and the physician often didn't take them seriously.

Some of you still experience this kind of dismissal. But luckily, with the advances of the last 20 years in medicine, most doctors acknowledged that these are genuinely metabolic illnesses. Plenty of physicians will dismiss chronic symptoms and say that certain conditions aren't "real." But even among those who acknowledge chronic conditions, it's rare that they truly understand the complex physiology behind it – let alone how to treat such conditions.

These illnesses involve serious symptoms. But without understanding the underlying cause, your doctor can't really understand where to begin the healing process.

"Wastebasket" Diagnoses, cont.

Many chronic illnesses don't show up via standard testing, and the lack of correlation between what the symptoms are and what can be measured frustrates and often confuses the doctor.

When Your Labs Come Back "Normal"

It's likely you've already been diagnosed with one of those "wastebasket" syndromes, from fibromyalgia to chronic fatigue syndrome, or maybe Hashimoto's or Lupus. Worse – perhaps you've been told you're completely healthy and just experiencing the typical signs and symptoms of aging... Why? Because your labs and imaging are completely normal, so there can't be anything wrong with you, right? You're probably just depressed. So here, try this antidepressant or this steroid.

And how many of you have been told this? It's likely that many of you have heard something similar. We hear stories like this all the time from our patients.

Again, this is not willful ignorance or because they don't want to help. Doctors want to help their patients more than anything. It's just that medicine has flourished in the last 100 years by curing acute illness and treating trauma. Then medicine used those same techniques and understandings to suppress the symptoms of chronic illness, but not to treat.





When Your Labs Come Back "Normal", cont.

Doctors understand chronic illness through the lens of acute illness and treatment options. They understand the pathophysiology of what organ systems aren't working well according to one main event or stressor – a virus, bug, or injury. But they never really figure out why the system is broken. Plus, they don't study the pathways required for healing or understand that you don't get to healing simply by reversing the way you got sick.

Instead, healing comes from getting the body to function again. But we have a standard of care in America, and all over the world for that matter, to treat symptoms. The danger of this approach has been well-known to naturopathic physicians for decades, but is just beginning to enter the culture of conventional medical care.

Recently, there was a study published showing strong evidence that simply suppressing the pain of early injury with nonsteroidals like Motrin or Advil (which people take like candy) or even stronger medicines, like steroids, actually increase the likelihood of going on to develop chronic pain because we've interrupted the healing pathways.

Not to say that we don't need those medicines, because sometimes someone is in so much pain, they need to minimize it. But the timing of pain interruption is important. And interventions like these certainly shouldn't take the place of deeper, root-cause healing.



There are so many underlying reasons for these mystery illnesses. And they're all going on at the same time, creating multiple biochemical reactions that are not often captured in your labs – especially standard labs.

Chronic Underlying Infections

What we can't find in most labs are things like underlying infectious triggers, nutritional deficiencies, environmental toxicities, and structural integrity issues. Sometimes, we can see these things in advanced lab testing or in imaging. However, it's much harder to measure things like psycho-emotional patterns, which contribute greatly to chronic conditions.

Yes, we can sometimes see these changes in the brain via imaging like the Neuroquant or SPECT scans and EEGS. However, no such tools are being used in standard medical care. Your doctors are usually just looking for an acute infection.

The idea that you might have caught an infection when you were a child and that is causing low-grade inflammation, or that there's been a dormant or persistent infection isn't a concept that most doctors are familiar with.

However, when dealing with chronic illness, we always consider old infections, subclinical infections, and other chronic infections that are very often overlooked. In terms of dental infections, we look way beyond cavities – we're looking for infections in the jaw, underneath root canals, underneath where wisdom teeth have been pulled, etcetera.

Chronic Underlying Infections, cont.

Often, I find chronic sinus infections. It could be a fungus, it could be bacteria – we're always looking for biofilm in the sinuses. Then, you can think about how close the mouth and sinuses are to the brain. There is incredibly easy access for bugs and inflammatory cytokines to the brain, which is a significant cause of brain fog in our patients. So, we diagnose these infections. And, of course, we treat them as a part of a much larger protocol.

One of the most common persistent infections is the family of herpes viruses. These viruses leave their DNA inside some of our B cells – immune cells that make our immunoglobulins. You have memory B cells with these viruses living in them, often living quietly in your bone marrow, just waiting to see the infection again – primed and ready to take care of it.

Unfortunately, when you have a chronic illness, or if you get a severe illness (very common in patients who had COVID), these old infections can either reappear or sometimes these B cells turn on and activate the immune system, making more immunoglobulins – just because of the inflammatory signals in the body. Then, these immunoglobulins talk to the rest of your immune system and increase the cytokines that lead to feeling sick.

We forget that a fever, or just fatigue, brain fog, and myalgias – are usually caused by the reactions of our own immune system.



Tick-Borne Illnesses

Another huge issue when it comes to chronic infection is tick-borne illness. And what's interesting about tick-borne diseases is that they don't really live in the bloodstream – they tend to hide in the connective tissue, nerve tissue, or sometimes in the organs. This makes them incredibly hard to detect on blood tests. But, in order to live within the body, they often modulate our immune system. They'll even sometimes turn up part of our immune system with what's called the TH2 response. This, again, is part of the immune response from lymphocytes and will increase the likelihood of developing allergies.

Nutritional Deficiencies

Now, on to nutritional deficiencies. Commonly, there are only a few nutrient deficiencies your doctors look for – vitamin D and vitamin B12. But several others are critical for supporting the biochemical reactions of metabolism and detox – especially when you've been ill for quite some time.

The problem is that many people are chronically ill and chronically undernourished by the modern American diet. If you're listening to us, you probably don't practice a modern American diet anymore, but chances are you did in your childhood, and that can still affect you today.

First, we measure amino acids and minerals to ensure you have enough to support your detoxification cycle and immune system. Antioxidants allow your body to protect itself from the inflammation you create to defend yourself from infections. Infections create inflammation, but our bodies also create inflammation, which is normal.

Nutritional Deficiencies, cont.

Still, we need to protect ourselves from that. And then, of course, you need healthy fats to make healthy cell membranes. Cell membranes are crucial to help nutrients enter the cell, toxins exit the cell, and hormones communicate.

Environmental Toxins

Environmental toxins are an enormous issue for chronic patients. We consistently find high levels of environmental toxins in our patients that double as endocrine disruptors and carcinogens. They're causes of neuroinflammation and inflammation throughout the body. And there's more and more research being published on the subject. Not enough, but it's happening.

Interestingly, some of you may or may not know the Agency for Toxic Substances and Disease Registries is an agency of the CDC – they formulate a registry on environmental toxins. This list is essential because it's a combination of how toxic a substance is, how frequently it's found in Superfund sites, and how many people are exposed. So, even the CDC is looking at this.

Metals are in the top 1-7 of all these chemicals

(with around 1,000 or more on the list)





Environmental Toxins, cont.

That's how toxic we are with metals. Of course, this isn't toxicology. We don't see Mad Hatter syndrome anymore. This is environmental medicine we're talking about. There's a big difference. It's not like you're poisoned by these chemicals, but they are causing low-grade inflammation in your body, which leads to immune dysregulation and makes you more susceptible to infections.

Arsenic is number one on that list of metals. Lead is number two.

Mercury is number three. Cadmium is number seven.

Many organophosphates and other industrial solvents, chemicals, pesticides, and insecticides are in the top 1 to 20. So we're constantly testing our patients for these, then removing them from their systems.

Structural Integrity

One majorly overlooked area is what we call structural integrity issues. Over the last 20 years, we've noticed that a vast majority of our chronically ill patients were actually hypermobile. At first, we thought that we just had a lot of patients who did yoga, but people with lax connective tissue have problems with controlling inflammation.





Structural Integrity

Ehlers-Danlos Syndrome (EDS) is a problem, but you don't need to have EDS to have hypermobility – many genes cause laxity. But what's interesting is that these genes seem to be linked to some of the genes that control the immune system. When one is upregulated, so is the other. So, lax ligaments don't cause inflammation; inflammation often coincides with lax ligaments, and interestingly enough, inflammation will make lax ligaments more lax. That's when we get to the issue of craniocervical instability and many other upper cervical issues. Ligaments will be laxer when your mast cells flare or just during allergy season.

People's symptoms will wax and wane because the vagus nerve (and many other nerves) are affected by microscopic changes in motion and increased pressure in the junction between the base of the skull and your neck. This is something that we really are spending a lot of time with. Even without the extreme example of craniocervical instability, we have to remember that muscular tension or old, unhealed injuries often restrict blood flow and lymphatic drainage, and therefore, oxygen and nutrients to nerves and tissues.

Many chronic symptoms, as varied as peripheral neuropathy or autonomic dysfunction, such as POTS or even SIBO, can have a lot to do with structural issues affecting the nervous system. And obviously, the big one is affecting the parasympathetic nervous system, especially the vagus nerve.



The Vagus Nerve and Central Nervous System

The vagus nerve makes up the main nerves of your parasympathetic nervous system and controls functions like digestion, heart rate and your immune system.

The vagus nerve has an old part and a new part. The very ancient part of the vagus nerve deals with the fight or flight (sympathetic) and just feeling safe in the world (parasympathetic). The vagus nerve goes to your heart and to the gut. It innervates the whole upper gut, your stomach, your liver, your gallbladder, the intestines. About 80 or 90% of the nerve information that flows in the vagus nerve actually is flowing back from the gut, giving information to the central nervous system. It acts as a feedback loop, so an upset vagus nerve can cause gut issues and vice-versa.

Some research suggests that environmental toxins (like pesticides in your food) can translocate between the gut and the brain via the vagus nerve as well.

It's also important to remember that the brain and the central nervous system (where our reactions to the world occur) control your immune system. When the central nervous system is irritated on the physical plane by structural issues, infections in your gut, or inflammation, your body creates signals. Now, your central nervous system is upregulated, and its job is to protect you. This can result in increased fear and anxiety – and you're left wondering why you're feeling things that seem so out of proportion to what's going on. Pretty soon, you begin to react to all kinds of environmental chemicals or just smells. This is a hyper-vigilant state.

The Vagus Nerve and Central Nervous System, cont.

Remember, stress does not cause illness, but it makes any illness worse. It exacerbates wherever your body is weak, and will make symptoms stronger or happen more often.

So, don't get upset when your doctor comments on your mood. It does play a role in your illness; it just doesn't cause it. Your anxiety, OCD, and sometimes depression are all manifestations of chronic inflammation in your brain. It does make it harder to heal, but it didn't cause the problem.

Very often, life events, things like losing your job, losing your marriage, God forbid, losing a family member – these can have devastating effects on us. And we have reactive depression to these things. But these are not causing your illness. The depression and anxiety that often happens secondary to chronic illness is more often from the inflammatory milieu that's now operating throughout your body and affecting your brain.

When your doctor has given you an antidepressant for your chronic fatigue, or for the pain that you're feeling in your body, but it doesn't work, or maybe makes you feel worse, that's why. It's because that antidepressant is not treating your illness – it's just treating one symptom. Chances are you didn't even need it. Some of you do need it. It's important to decipher who needs it and who doesn't.



In chronic illness, there are primary issues and secondary issues. Primary issues are what we talked about:

- Infections
- **>** Toxins
- Nutrient Deficiencies
- Structural Issues
- > Psycho-Emotional Patterns

The alchemy of these issues causes secondary issues. Primary issues directly affect the immune and nervous systems and create complex patterns.

In our patients, on the one hand, we see hyperactive immune systems. On the other hand, we see an immune system that's dampened (unable to mount an appropriate immune response). So, what does that look like?

When the immune system is hyperactive, we see things like mast cell activation syndrome (MCAS). The patient is hypersensitive to all kinds of things – foods, smells, sounds – they can even be sensitive to a hot bath or a hot shower.

Another example of a hyperactive immune system is autoimmune conditions. We've seen a lot of Hashimoto's thyroiditis, rheumatoid arthritis, and Lupus. These are all examples of how the immune system could be hyperactive or hypervigilant.





At the same time, we're seeing that patients can't mount an appropriate immune response to kill off infections. For example, our immune systems should be able to kill molds, detoxify mycotoxins and deal with tick-borne diseases.

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So why do patients have hyperactive immune systems and underactive immune systems at the same time?

And you might even be saying, "Oh, my goodness, that's me. I'm super sensitive, and I can't kill these bugs." It's very, very common.

It's not Lyme disease alone, for example. It's not the mold alone. All of these other factors make your body the perfect host for Lyme and other chronic infections.





Diagnostics

Now that we have a better idea of what's happening in the body, we can turn to diagnostics.

First, we test for the primary issues – the infections, the toxins, the nutritional deficiencies, immune system evaluation, detox pathways – we can look at all of this. We also do genetic testing to see SNPs or single nucleotide polymorphisms so we can understand you better. Then, we marry the genetic information with what we see in your biochemistry and add any pertinent imaging. And, of course, we're doing all the standard labs that your primary care doctor does, in addition to testing for other foundational issues, like your hormones or adrenals.

One thing to mention is that different people with similar labs will have very different presentations. This is why this is an art in addition to a science.

Many patients tell me that they're in a Lyme group or a mold and mycotoxin group, and their labs look similar to someone else's with a much different presentation.

The reason why is that everyone with these diagnoses is inflamed. That's for certain. However, where the inflammation presents most in your body has to do with your unique genetic expression. The genes are triggered by the inflammation, the infections, and the toxins. And then what is expressed is unique to each individual. Chronic inflammation is the individual expression of your body meeting the world.





Setting the Foundation

So maybe your next question is, "how do you treat all of this? What comes next after you've done all these labs?" We do have a general template for treatment. But just know that every patient is different. Again, that's where the art of this comes in.

What usually *doesn't* vary is starting with foundational treatments like diet and lifestyle. Most of our patients already have that down before they come to the clinic – they're already eating super clean, and their lifestyle is good. Stress management is another one. A lot of patients have stress at home. Sometimes, that's not something you can control – the stress of another person in your family. But it can be mitigated through diet and lifestyle choices. Another common thread is hormone balancing. This is something we often have to do for patients before we can even begin treatment.

These are like the foundation of the house. If we have the foundation set, then we can give you all the other therapies to kill the infections, to detoxify. If the foundation isn't set, then the other therapies will just fall through the cracks or even trigger flares, which is why it's so critically important to make sure you set the stage and not do things too quickly.

Immune Regulation

At the same time, we're also working on structural integrity and emotional balancing. When the patient is ready (and it's different for each person), we'll start to detoxify. This is where things really vary. Some people are ready for detox in three weeks, some people need a few months. It all depends on you and how you're responding to treatment.

Immune Regulation, cont.

Remember, as we detox, we create inflammation, so the body has to be ready for this. That's why we use peptides for immune regulation first, because we know you're going to be inflamed. The detoxification process includes treating that inflammation with targeted supplements as well, which bind inflammatory cytokines.

Treating Infections

Next, we move on to infections. Every time we kill an infection, we release biotoxins. These are byproducts from dying cells and dying bugs, so there's always going to be an inflammatory cytokine flare.

This is why so many people flare when given antibiotics or even herbs for treating Lyme. Their immune systems haven't been prepped for detox first. It's what is called a Herxheimer reaction – when you feel much worse or have a series of flares when you start a detox. Maybe you're familiar with that. Our patients don't get herxes so much because we're mitigating for that beforehand.

So, when treating infections, we usually start with mold. If someone has Lyme, for instance, and they have mold, we treat the mold first. Then, we're calming the immune system and oftentimes, may not even have to treat the Lyme. Sometimes, you have to treat the gut first, or the sinuses first, or the dental issues. Every patient is different. But usually, we're finding what's at the top layer and going for that, gently, according to each patient. It's an art and a science.

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Structural Integrity Issues

Any time you've had an injury, there's a possibility that it hasn't healed completely or that a part of the system isn't in full communication with the rest of the body. Maybe it's an area that once had inflammation and it's difficult to get rid of those inflammatory byproducts because lymphatic drainage isn't good.

Structural Integrity Issues, cont.

This is critically important to address in the larger picture of chronic illness. I think about the mid-thoracic spine, for instance. When that's aggravated, it's often aggravated because the gut is aggravated. If that's aggravated from an injury or from a car accident, the nerves that are going to the heart and to the gut, and the gallbladder are often irritated. And this makes it more difficult to heal.

Many times you can get the right therapy for the organ. But if the nerves, especially the sympathetic nerves that are coming from the spine, are being constantly irritated because of local irritation or problems with blood flow, you keep that inflammatory signal going.

So, it's so important to have a good look at the structure, and especially the fascia, because many times, the bones can look like everything's in the right place, but the connective tissue is tight.

For instance, with acupuncture, you're not going to get as good of a response if the connective tissue is tight. Or, you're going to get flares because you're interfering with the flow of the meridians. These flow through the fascia – that shiny connective tissue that envelops all your muscles and tissues.





Specific Testing Recommendations

For nutritional deficiencies, I like to look at the Spectracell Micronutrient Analysis. The Genova Nutreval is also good.

For heavy metals, it's very important that you do a non-provoked and a provoked test.

Non-provoked means you're just looking at what an acute exposure could be. That's simply collecting your urine or blood – *just a standard lab like LabCorp, or Quest* – that's going to tell you what's floating around your system. And acutely very important to know. If you see elevated mercury and lead in the blood, that means you've had a recent exposure.

If that's high, it's <u>really important</u> to actually compare that to the CDC standards, because that's one place where they've really done a good job of figuring out where a metal could be contributing to a disease. If you're at 75th percentile and higher, it's generally acknowledged that the metals are contributing to a disease. So that's acute exposure.

If you're 75th percentile or higher, you've got good reasoning to then do a provoked test. This is where your doctor might give you some calcium EDTA to pull out lead and other metals and DMPS to pull out mercury and other metals. Then you'd collect your urine for six hours. For provoked metals, we use **Doctor's Data**.



Specific Testing Recommendations, cont.

The other thing I like to do with **Doctor's Data** is to look at the **essential elements**. So, we want to look for minerals. If your mineralization status is not up to par, we can detox you till the cows come home, but the metals are just going to recirculate, which is the last thing we want. So minerals and amino acids are cofactors for detoxification – both of which you'll see on the **Spectracell** test.

Another test we use that most doctors don't is from a small lab in New Jersey called **Health Diagnostics.** This one looks at methylation and can break down the various components of folic acid. Folate alone doesn't tell you much because if you take folate supplements or you're eating foods or supplements with folate, levels can look normal on a standard blood test. **Health Diagnostics** looks at subsets of folate metabolism including 5-methyl tetrahydrofolate that people talk about all the time, but also folinic acid, and that's really important.

We can also look at reduced and oxidized glutathione because most testing is just total glutathione. Total glutathione can really fool you, making levels look great when you've really got very elevated oxidized glutathione. That means that you've used up your reduced glutathione – likely to fight an infection. This is the only lab I know that breaks these down into these really helpful components.





Tests to Detect Infection

We use **Igenex** a lot for tick-borne diseases. They're a great sensitive test for antibodies and PCR tests, but we use **Infectolab** to *follow patients progress during treatment*. Infectolab looks at T-cells, plus interferon-gamma and interleukin-2.

Infectolab looks at tick-borne illnesses like Lyme, Bartonella, Babesia, Ehrlichia, and Rickettsia. You can also look for viruses like EBV, CMV, HHV-6, and for mycoplasma pneumoniae or chlamydia pneumonia – you can choose which ones you want. Infectolab takes your blood and exposes it to these infections and if interferon gamma lights up, it means you're fighting this infection right here, right now. If interleukin-2 lights up, it means you've recently seen the infection, you're at the tail end of it, and there's a bit of inflammation left from recently fighting the bug.

In the past, we couldn't really tell where someone was in the process of fighting an infection. But this is really important because so many of our patients come to us presenting as though they have an active infection.

Prior to this **Infectolab** test, we likely would have done an antibody test that would have shown positive, and we would have treated them for tickborne disease. But now, we're seeing patients who once had an infection, but it's no longer active. So we know to just put them through some regenerative medicine processes to help heal their tissues and the neuro-inflammation.

The antibody tests are still useful.

Tests to Detect Infection, cont.

Unfortunately, Infectolab doesn't have the full spectrum of subspecies of the various bugs because they can miss some of the Bartonellosis and the Babesia Duncani that we have on the West Coast.

The beauty of their testing is that they're precise. The problem with the testing is it's very specific, so it can miss some of the bugs that we need to know about. That's why we still use **Igenex on the West Coast**, and there are also other labs that do a good job or specialize in specific infections. The world of lab tests is constantly evolving, and we really encourage doctors to keep up with this.

In terms of getting your hands on these tests, your best chance is to get them from a doctor. Some states will allow you to order them yourself, but it depends – every state and every lab has different rules.

Peptides as a Treatment Option

As mentioned before, we use peptides to help modulate the immune system before we bring in other treatments – especially the detoxification process. But timing is critical. Usually, chronic patients have a hyperactive immune system, and we have to calm that down before anything else. Generally, we'll use peptides specifically aimed at calming the immune system – TP4-frag and BPC-157.



Peptides as a Treatment Option, cont.

Then, there are a couple of peptides that work really well for mast cell activation syndrome – KPV and amlexanos both do a great deal. Believe it or not, many patients with MCAS do very well with these peptides – even when their bodies reject herbal treatments. You just have to be really careful not to use peptides that are immune stimulating, and do things in the right order. Once the immune system is in a stronger place, we can bring in other peptides to help fight infection or strengthen other systems.

Long-COVID Treatment Options

We recommend that patients first look on covidlonghaulers.com – a site put together by Dr. Bruce Patterson. You can purchase a specific cytokine test and schedule a consult, but they won't prescribe. You can then take the results to your doctor and see what they can do for you. That's a first step because there's a lot to do for long-COVID – a lot of different treatments that do work.

Another thing to mention is what we often see as an underlying factor of long-COVID – other infections that were dormant before. Patients didn't even know they had them, but they were triggered during the acute COVID infection. For example, they had Lyme, but the immune system could keep it in check. Then the inflammatory cytokine flare from COVID reignited that Lyme, or whatever infection was underneath there. It's very common to see Epstein Barr Virus, mycoplasma pneumonia, and tickborne flares that most doctors aren't testing.

Long-COVID Treatment Options, cont.

There is, in fact, some good mainstream literature on EBV reactivation as a cause of long-COVID. You can look these up and share them with your more mainstream doctors to hopefully get the discussion started.

With complications from COVID, there's also a guarantee that your hormones are dysregulated. Inflammatory cytokines mess with your hormones – most likely the adrenals – so you'll want to test those. You'll also want a full thyroid panel, including TSH, Free T3, Free T4, and Reverse T3.

How We Work With Patients

We work with people from all over but if we don't have a license in your state you need to come to see us in California. We can also work with your doctor in states we don't have licenses in.

Many of our patients travel to our clinic for treatment, depending on how sick they are. We also consult with other doctors. It's a chance for learning on all sides because anytime you talk to another practitioner, no matter what their background, you can often learn something.



Watch It



Thank you so much for joining this important conversation.

If this resonates with you and you're looking for more information on the treatment of complex chronic illness, **stay tuned for presentations and educational materials** on managing long-term COVID, including little-known causes and treatment options.

You'll also have access to some incredible information on why many chronic patients feel worse when they begin the detox process or how a detox can actually make you toxic. We'll explore the concept of "Pre-Tox," what it is, and how to get started to ready your system for detoxification.

Stay Updated With Our Newsletter

Get the latest GMA news, event information, educational content, and more, delivered straight to your inbox.





Unraveling Complex Chronic Illness Restoring Vitality

We are Gordon Medical and we're here for you.

We know first-hand how heartbreaking and frustrating it can be to navigate the world of chronic illness – whether you're learning for yourself or a loved one. Follow your heart, follow your instincts, and know that you'll find the right path.

Start your healing journey today by

scheduling a complimentary Discovery Call with our New Patient Coordinator.









Unraveling Complex Chronic Illness Restoring Vitality

At Gordon Medical Associates, we serve patients from the greater San Francisco Bay area, the entire country, and around the globe.

We specialize in individualized care for a wide range of complex chronic illnesses, including Chronic Tick Borne Illnesses, ME/CFS, Fibromyalgia, Mold illness, Long COVID, and Autoimmune conditions.

Learn more at: www.GordonMedical.com

Gordon Medical Associates

361 3rd Street, Suite J San Rafael, CA 94901 (415) 757-6100

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Citations

- (1) https://wwwnc.cdc.gov/eid/article/21/8/14-1878_article
- (2) https://www.cdc.gov/media/releases/2013/p0819-lyme-disease.html
- (3) https:/pubmed.ncbi.nlm.nih.gov/2682960/
- (4) https://www.frontiersin.org/articles/10.3389/fmed.2020.00568/full

